

**REMARKS**

Claims 1-7 and 10-19 are all the claims presently pending in the application. Various claims have been amended to more particularly define the invention in accordance with local practice. Claims 18 and 19 have been added to increase scope of coverage and to replace canceled independent claims 8 and 9. It is noted that these two new independent claims replace two canceled independent claims, so no excess claims fee is due.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

The Examiner is understood as rejecting the specification under 35 USC §112, first paragraph, and/or objecting to the layout of the specification as lacking section subtitles.

Claims 3, 8-10, 12, 14, and 15 stand rejected under 35 USC §112, second paragraph, for being indefinite.

With respect to the prior art rejections, claims 1, 2, 6 and 7 stand rejected under 35 U.S.C. § 102(b) as anticipated by Otting et al. (U.S. Patent No. 6,477,372). Claims 3, 10, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Otting et al, further in view of Einola (U.S. Patent No. 5,960,354). Claims 4-5, 11, 13 and 16-17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Otting, further in view of Brody (U.S. Patent No. 4,670,899). Claims 12 and 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Otting, further in view of Einola, and further yet in view of Brody.

Claims 1, 4, 5, and 6 stand rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1, 6-7, and 10 of co-pending Application No. 10/714,847.

These rejections are respectfully traversed in the following discussion.

## I. THE CLAIMED INVENTION

As described and defined in, for example, claim 1, the present invention is directed to a method of network acquisition for a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies. One radio technology is searched to identify a suitable cell. Subsequent to identifying a suitable cell on the one radio technology, cells on another of the plurality of radio technologies are also monitored in order to identify if one of the monitored cells is more suitable than the cell identified on the one radio technology. Subsequent to monitoring, the cell identified from all of the radio technologies searched as being the most suitable is selected and camping for the first time occurs onto that cell.

The conventional method demonstrated in Figure 1, initially camps onto the first cell identified as satisfactory. If the subsequent search of other technologies identifies another better cell, the device must then de-camp from the initial cell in order to re-camp onto the newly-identified, more suitable, cell. As explained at lines 22-28 on page 2 of the original specification, this conventional method causes significant loss of time and energy consumption.

The claimed invention, on the other hand, teaches that the initial camping onto a satisfactory cell can occur only after determining the most suitable cell, including searching the other technologies for that most suitable cell, thereby precluding the time and energy expenditure of the conventional method in which camping must occur to a new cell.

## II. THE 35 U.S.C § 112, FIRST PARAGRAPH, REJECTION

The Examiner is understood as rejecting the specification under 35 USC §112, first paragraph, and/or objecting to the layout of the specification. Applicants attach hereto a specification that is rewritten using section subtitles and making various minor amendments, as indicated by the copy of the filed specification as marked up to show the changes.

Relative to the Examiner's concern for definition of "BA list", Applicants respectfully direct the Examiner's attention to the definition provided at lines 7-8 on page 5, wherein the terminology "BA list" is clarified as "BA (neighbouring cell) list."

It is further pointed out that the novelty of the present invention is not in the execution of the reading of the BA list, since this step is known in the art, but, rather, in the camping sequence, wherein the initial camping does not occur until the BA list has been monitored on other RATs. This sequence differs from the conventional method described in Figure 1, wherein step 20 clearly shows that the initial camping occurs prior to reading the BA lists and monitoring other RATs, in steps 20 and subsequent.

Thus, Applicants submit that the details of executing the “BA list” is not an essential part of the present invention and are assumed to be known by one of ordinary skill in the art, since the present invention does not purport to change this aspect of the conventional method.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection/objection.

### **III. THE 35 U.S.C § 112, SECOND PARAGRAPH, REJECTION**

Claims 3, 8-10, 12, 14 and 15 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants believe that the claim amendments above overcome this rejection.

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

### **IV. THE PRIOR ART REJECTIONS**

The Examiner alleges that Otting anticipates the claimed invention defined by claims 1, 2, 6, and 7, and, when modified by Einola, renders obvious the invention defined by claims 3, 10, and 15. The Examiner further alleges that Otting, when modified by Brody, renders obvious the invention defined by claims 4, 5, 11, 13, 16, and 17 and that Otting, when modified by both Einola and Brody, renders obvious the invention defined by claims 12 and 14. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by Otting, either alone or in combination with either Einola or Brody.

More specifically, a key feature of the present invention is that the initial camping does not occur until after all the RATs are monitored to determine which station is the most suitable. This process eliminates the need to go through the complicated and energy consuming task of having to de-camp from one initial cell should another cell be determined as more suitable and camping again to that more suitable cell.

As described at lines 6-22 of column 5, Otting discloses the method of first determining which of alternate technologies are available and then camping on the alternate technology, if any, determined to provide the best service.

Applicants submit that this process differs from the plain meaning of the claim language of the present invention defined by the independent claims, wherein the best cell is determined, after monitoring all the RATs, for purpose of determining the specific cell for the initial camping.

Applicants further submit that Otting makes no suggestion that the problem addressed by the present invention is eliminate. That is, there is no suggestion in Otting that re-camping (or de-camping) would not be necessary in the RAT determined to be most suitable, since, as explained in Figure 1 of the present Application, the conventional method of selecting a cell upon which to camp does not attempt to find the most suitable cell for the initial camping.

The Examiner relies upon Einola and Brody for purposes other than overcoming this basic deficiency in Otting. Therefore, Applicant submits that there are elements of the claimed invention that are not taught or suggest by Otting et al.

Hence, turning to the clear language of the claims, in Otting there is no teaching or suggestion of: "... searching to identify a suitable cell on one radio technology (RAT); subsequent to identifying a suitable cell on the one radio technology, also monitoring cells on another of the plurality of radio technologies in order to identify if one of the monitored cells is more suitable than the cell identified on the one radio technology; and subsequent to said monitoring, selecting and camping for a first time on a cell identified from all of the radio technologies searched as most suitable."

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw this rejection based on Otting.

Further, Applicant submits that the Examiner can point to no reasonable motivation or suggesting in the references themselves that urge the modification to the primary reference

Otting, as urged by the Examiner.

Indeed, relative to the modification of Otting by secondary reference Einola, the Examiner supports the combination by merely stating that “[i]t would have been obvious ... to modify Otting to include the step of obtaining a BA list for at plurality of RATs, as both systems relate to multimode mobile devices. This is beneficial in that obtaining a list of BCCHs to monitor speeds of the process of scanning for appropriate cells for handover.”

Applicants submit that even if everything else in this analysis were to be taken at face value, this modification fails to satisfy the plain meaning of the claim language. The plain meaning of the claim language is not simply claiming the element of a BA list.

More specifically, claims 3 and 10 specifically state that the BA list is related back to the description in the independent claim: “... monitoring cells on another of the plurality of radio technologies in order to identify if one of the monitored cells is more suitable than the cell identified on the one radio technology....” The Examiner expressly states an entirely different purpose, which purpose clearly fails to satisfy the plain meaning of this claim language. Applicants submit that the Examiner cannot simply rewrite the claimed invention in the prior art evaluation.

Stated slightly differently, even if modified by Einola, the primary reference Otting would still not satisfy the plain meaning of the language of dependent claim 3.

Moreover, the Otting and Einola references address two unrelated problems. Otting relates to scanning alternate radiotelephone systems without missing paging messages where it is present camped (e.g., see lines 12-15 of column 2), whereas Einola relates to handover between bands without knowledge of the channels on the other band (e.g., see lines 34-38 of column 3). Thus, these two references are disparate.

Therefore, Applicants submit that one of ordinary skill in the art, attempting to “improve” the solution provided in Otting to the problem addressed therein, would have no objective reason to consult the disparate reference Einola for any suggestions of making any improvements, particularly since the element conceded by the Examiner as missing in the primary reference Otting (e.g., the BA list used in monitoring to identify if one of the cells is more suitable) is not used in the secondary reference Einola in any way related to the problem being addressed in Otting.

Therefore, Applicants submit that the rejection currently of record has no reasonable

motivation to modify Otting by using Einola.

Relative to the motivation to modify Otting with Brody, Applicants also submit that there are two different problems involved and, therefore, two disparate references having no reasonable basis for combination/modification. Additionally, Applicants submit that, relative to the rejection for claims 5 and 13, the description at lines 19-48 of column 19 contains no suggestion of a derivative.

## V. THE DOUBLE PATENTING REJECTION

The Examiner alleges that claim 1 of the copending Application 10/714,847 "...  
*includes all of the limitations of claim 1 of the instant application as follows:*

*A method of network acquisition for a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and comprising searching to identify a suitable cell on one radio technology and, subsequent to identifying a suitable cell on the said one radio technology, comprising the steps of also monitoring cells on another of the plurality of radio technologies in order to identify if one of the said monitored cells is more suitable than the cell identified on the said one radio technology, and subsequent to said monitoring, selecting and camping for the first time on the cell identified from all of the radio technologies searched as the most suitable."*

Applicants submit that, contrary to the above characterization, as obtained from the official record on the USPTO web site, the language of claim 1 of S/N 10/714,847 actually reads:

*"A method of network acquisition for a cellular radio communications device arranged to operate on a plurality of radio technologies and comprising determining the most suitable cell based on a characteristic of signals received from a plurality of cells, the signals from each cell being provided over a band of frequencies, and the method being arranged for taking a series of measurements of the said characteristic for one radio technology and for each frequency, wherein prior to the final measurement in the said series, the said characteristic of at least one measured signal for each frequency is compared with a predetermined value and if the comparison indicates that the radio technology is unlikely to*

*produce a suitable cell, the step of switching to an alternative radio technology prior to the said final measurement in the series being taken and searching signals associated with the alternative radio technology to search for a suitable cell.”*

That is, contrary to the characterization by the Examiner, claim 1 of S/N 10/714,847 defines an entirely different invention from claim 1 of the present Application. Applicants submit that the Examiner cannot simply add wording to an Applicants' claim for purpose of making a double patenting rejection.

Indeed, the rejection currently of record follows the completely unorthodox strategy of, first, inexplicably adding the wording of claim 1 of the present invention to original claim 1 of co-pending Application 10/714,817, thereby *sua sponte* redefining that invention in terms of the present invention, and then, second, inexplicably removing the wording of original claim 1 of 10/714,817 to thereby arrive at the wording of claim 1 of the present invention that remains from the Examiner's inexplicable addition of the description of the present invention.

The invention of S/N 10/714,847, as explained by its independent claim 1, involves a specific method of evaluating a cell's measured signal by using a predetermined threshold value. Applicants submit that this invention of S/N 10/714,847, that defines a specific method of evaluating a cell's measured signal, is entirely different from the invention defined in claim 1 of the present invention, wherein is defined a method of delaying camping until the best cell has been determined. Thus, Applicants submit that these two claims address two entirely different problems and two entirely different concepts and define two entirely different solutions.

The Examiner has inexcusably added the concept of one invention into the second invention and subtracted the concept of the second invention to thereby result in the remaining concept of the first invention that the Examiner has added.

Applicants respectfully submit that such reasoning is totally illogical and respectfully request that the Examiner reconsider and withdraw this rejection.

## VI. FORMAL MATTERS AND CONCLUSION

In the Office Action Summary the Examiner indicates that no priority document certified copies have been entered into the record. Applicants suspect that this entry is in error, since Applicants' records show that a certified copy of United Kingdom Application No. 0226978.5 having a UK filing date of November 19, 2003, was submitted to the USPTO on July 12, 2004. A copy of the cover page of that submittal to the USPTO, a copy of the front page of the package with the document actually submitted, and a copy of the date-stamped Attorney's post card filing receipt associated with this submittal are attached hereto.

Therefore, Applicants respectfully request that the Examiner acknowledge that the priority document filed on July 12, 2004, has indeed been entered into the record.

In view of the foregoing, Applicant submits that claims 1-7 and 10-19, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 11/17/05



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I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

I also certify that the attached copy of the request for grant of a Patent (Form 1/77) bears an amendment, effected by this office, following a request by the applicant and agreed to by the Comptroller-General.

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Signed

Dated 11 September 2003

Docket No.: WN-2619  
GOT.080



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of

Richard Ormson, et al.

Serial No.: 10/714.892

Group Art Unit: 2681

Filing Date: November 18, 2003

Examiner: Unknown

For: CELLULAR NETWORK ACQUISITION METHOD AND APPARATUS

Honorable Commissioner of Patents  
Alexandria, VA 22313-1450

**SUBMISSION OF PRIORITY DOCUMENT**

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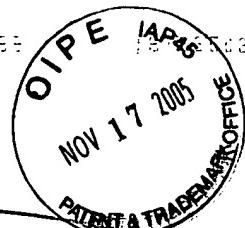
Submitted herewith is a certified copy of United Kingdom Application Number 0226978.5 filed on November 19, 2003, upon which application the claim for priority is based.

Respectfully submitted,



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WN-2619

DESCRIPTIONBACKGROUND of THE INVENTIONField of the InventionCELLULAR NETWORK ACQUISITION  
METHOD AND APPARATUS

1

The present invention relates to a method and apparatus for use in  
5 network acquisition for cellular communications devices.

Description of the Related Art

Cellular communications devices such as cell phones, have become increasingly popular and widely adopted and in many instances have become the prime means of communication both for business and domestic  
10 requirements.

As such usage becomes more widespread, potentially disadvantageous and limiting features of such devices become more apparent. For example, when a cell phone is first turned on, an acquisition procedure needs to be  
15 conducted so that the cell phone can acquire the appropriate communications network and subsequently take part in a communications exchange over that network. The period between turning the cell phone on and actually acquiring the network does not generally go unnoticed by the user and comprises dead time as far as the user is concerned since no other operations over and above  
20 network acquisition are conducted during that period. The longer the time period required to acquire the network, the more likely this period is to be noticed by the user and so as to lead to potential irritation.  
Also, network acquisition procedures require the cell phone handset to expend a significant amount of power relative to power requirements arising merely for  
25 communication procedures.

Indeed, in view of the different mobile communication modes that have arisen, and the subsequent requirement for cell phone handsets to offer dual mode, or indeed multimode, operability, it will become increasingly necessary for each  
30 handset to search on more than one mode. Thus potential delays in network acquisition, and related user irritation, could become more frequently experienced. As explained further below network acquisition requires a search

through a set of frequencies – generally defined by a frequency band in an attempt to identify the most suitable cell of a network. With dual mode operation, there will be multiple sets of frequencies to search through in order not only to find the most suitable cell, but also the most suitable network given 5 the at least dual mode operability of the handset.

## SUMMARY OF THE INVENTION

The present invention seeks to provide for a network acquisition method and apparatus which exhibits advantages over known such methods and apparatus.

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According to one aspect of the present invention, there is provided a method of network acquisition for a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and comprising searching to identify a suitable cell on one radio technology and, 15 subsequent to identifying a suitable cell on the said one radio technology, comprising the steps of also monitoring cells on another of the plurality of radio technologies in order to identify if one of the said monitored cells is more suitable than the cell identified on the said one radio technology, and subsequent to said monitoring, selecting and camping for the first time on the 20 cell identified from all of the radio technologies searched as the most suitable.

The invention is particularly advantageous in improving the initial search procedure when turning on a cellular radio communications device so as to advantageously reduce dead time experienced by the user and also to reduce 25 handset energy consumption. In particular, the arrangement can save the handset from transmitting unnecessary signalling information and which procedures exhibit a high power requirement. The network is also saved from dealing with unnecessary signalling and processor loadings.

30

Advantageously, subsequent to identifying a suitable cell on the said one radio technology, the method can be arranged to monitor neighbouring cells on all the plurality of radio technologies of interest.

Yet further, and subsequent to the identification of a suitable cell on the said one radio technology, the method can be arranged to obtain the BA list provided for that identified cell but for the other of the available radio technologies.

In such a manner, the method is arranged to monitor cells on both radio technologies.

10 Preferably, when searching to identify a suitable cell, the cells are ranked in accordance with signal strength, or a derivative of signal strength, of signals received there from.

15 According to another aspect of the present invention there is provided a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and including means for searching to identify a suitable cell on one radio technology and means for monitoring cells on another of the plurality of radio technologies, subsequent to the identification of a suitable cell on the said one radio technology, so as to 20 identify if one of the said monitored cells might prove more suitable than the said identified cell, and further including means for, subsequent to the said monitoring, selecting and camping on the cell identified as the most suitable.

25 Advantageously, the cellular radio communications device is arranged to operate in accordance with method steps as defined above.

### BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described further hereinafter by way of example only, with reference to the accompanying drawings in which:

30 Fig. 1 is a flow chart illustrating network acquisition in relation to a plurality of radio technologies as currently known; and

Fig. 2 is a flow diagram illustrating a method of network acquisition for use in relation to a plurality of radio technologies and according to an embodiment of the present invention.

## *DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS OF THE INVENTION*

As will be appreciated, under the 3GPP specifications a handset is required to search one entire radio access technology (RAT) at a time. The relative priority of RATs is set within the handset and so in a dual mode GSM/UMTS handset an initial search of GSM or UMTS will be undertaken and the process will only look at the second RAT during initial selection if no suitable cells are found on the first RAT.

However, it may be that a cell on the second RAT is more suitable than a cell that has been located on the first RAT. Under the current scheme of operation, this will be detected after the handset has camped onto the cell found on the first RAT, read the neighbour cell lists, and monitored the cells of the second RAT. A reselection will then be performed. As this is an inter-RAT reselection, it is not a simple procedure and involves significant signalling traffic. Disadvantageously, this takes time and consumes energy.

Turning now to Fig. 1, the known method, for a dual mode phone, starts by searching the first radio technology RAT at step 10 in order to determine, at step 12, whether a suitable cell has been located.

If, at step 12, it is found that no suitable cell is located, the method proceeds to step 14 where the cells of the second RAT are searched to identify, at step 16, whether a suitable cell has been found.

If, at step 16 it is found that no suitable cell is identified on the second RAT, then the method returns to original step 10 via a holding step 18.

However, if in either of steps 12 or 16 it is found that a suitable cell does exist on one of the RATs, then the decision is taken at step 20 to camp on that cell for network acquisition purposes.

- 5        However, in accordance with the current art, in order to ensure that a more suitable cell does not exist elsewhere, once having identified an initially suitable cell, the method proceeds by steps 20, 24 by reading the BA (neighbour cell) list provided on that cell for both RATs, and also monitoring neighbouring cells on both RATs. If, after step 24, it is found at step 26 that a  
10      more suitable cell does not in fact exist than the one initially identified and camped upon at step 20, then the method proceeds to step 28 into its idle mode of operation.

- 15      However, if, at 26, it is determined that a more suitable cell than that camped upon at step 20 is in fact found, then the method proceeds to step 30 which seeks to determine whether or not this seemingly more suitable cell is found on the different RAT from which the cell camped upon at step 20 is found.

- 20      If this is not the case, then the cell on that RAT is simply reselected at step 32 and the method then proceeds into its idle mode at step 28.

- 25      However, if it is fact found at step 30 that the more suitable cell is located on the other RAT, then, at step 34, it is necessary to decamp from the first RAT and subsequently camp on the cell associated with the other of the two RATs.

- 30      Such processing can prove to be disadvantageous both as regards time delays and, in particular, power consumption. Step 20 and step 34 use relatively large amounts of power as they are procedures requiring the handset to transmit significant levels of signalling to the network.

Turning now to Fig. 2 however, there is an illustrated example of an embodiment of the present invention which offers advantages over that described in relation to Fig. 1.

- 5 It is therefore proposed that, before camping on to a cell identified on one RAT, the BA list provided on that cell for the alternate RAT should be read, and the cells monitored to see if any are preferable. This will lead to the initial search procedure taking a fraction of a second longer (unless combined with parallel search techniques which we describe in other applications).
- 10 However, the mechanism potentially saves the handset transmitting unnecessary signalling and expending significant energy. Of course this also saves the network from dealing with unnecessary signalling – while the network is not particularly interested in the energy saving this provides, the mechanism also reduces the network signalling and processor loadings, which
- 15 are useful effects.

Turning to Fig. 2, there is illustrated a somewhat similar initial procedure to that illustrated in Fig. 1, in which, at step 36, a search of the first RAT is conducted to identify, at step 38, whether a suitable cell has been located. If 20 the suitable cell has not been located, the method proceeds to step 40 and a search of the second RAT to identify, at step 42, whether a suitable cell has been located on that second RAT. If no suitable cell is determined from the second RAT either, the process returns to initial step 36 via a holding step 44.

25 However, if, at step 38, a suitable cell is identified on the initial RAT searched at step 38, or indeed on the second RAT searched at step 42, the method proceeds to step 46 at which BA lists provided on that cell for the alternate RAT are read, and the cells monitored to identify if any likely more suitable cell to that identified at step 38 exists.

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Importantly, it is noted that in accordance with the present invention at this stage no camping onto a cell has yet occurred.

Subsequent to steps 46, 48 it is determined whether or not a more suitable cell than that identified at step 38 has been located.

- 5 If not, the method proceeds to step 52 at which the handset camps onto the original cell found at either of steps 38 and 42.

- However, if the determination at step 50 indicates that a likely more suitable cell has in fact been located, then steps are simply taken at step 54 to  
10 camp onto the likely more suitable cell.

Subsequent to the camping onto the appropriate cell at either of steps  
52, 54, the method then proceeds into the ~~101/et~~ mode 56 for the handset.

- 15 Thus, it will be appreciated from Fig. 2 that, whichever RAT eventually provides for the most suitable cell, only one camping step, and no subsequent de-camping step, is required.

This is best illustrated by a comparison of stage A in Fig. 1 with stage B  
20 in Fig. 2, stage B requiring far less power expenditure than stage A.

- This mechanism is a dual mode search, and operates in a way compatible with the 3GPP specifications. However the mechanism is not limited to those technologies described in the 3GPP specifications; it is  
25 applicable to any multi RAT system where information on alternate RAT cells is provided in RAT broadcast information.

## CLAIMS

1. A method of network acquisition for a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and comprising searching to identify a suitable cell on one radio technology and, subsequent to identifying a suitable cell on the said one radio technology, comprising the steps of also monitoring cells on another of the plurality of radio technologies in order to identify if one of the said monitored cells is more suitable than the cell identified on the said one radio technology, and subsequent to said monitoring, selecting and camping for the first time on the cell identified from all of the radio technologies searched as the most suitable.
2. A method as claimed in Claim 1, wherein the step of monitoring the cells on the said another RAT comprises monitoring neighbouring cells on all of the plurality of RATs.
3. A method as claimed in Claim 1 or 2, wherein the step of monitoring cells on the said another RAT includes the step of obtaining BA list on the said identified cell but for all of the plurality of other RATs read.
4. A method as claimed in Claim 1, 2 or 3, wherein the suitability of the cells is determined on the basis of the strength of a signal received therefrom.

5. A method as claimed in Claim 1, 2 or 3, wherein the step of identifying a suitable cell includes determining a derivative of the strength of a signal received therefrom.
6. A cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and including means for searching to identify a suitable cell on one radio technology and means for monitoring cells on another of the plurality of radio technologies, subsequent to the identification of a suitable cell on the said one radio technology, so as to identify if one of the said monitored cells might prove more suitable than the said identified cell, and further including means for, subsequent to the said monitoring, selecting and camping on the cell identified as the most suitable.
7. An apparatus as claimed in Claim 6 and arranged to operate in accordance with the method steps of any one or more of Claims 2-5.
8. A method of network acquisition substantially as hereinbefore described with reference to, and as illustrated in, Fig. 2 of the accompanying drawings.
9. A cellular radio communications device substantially as hereinbefore described with reference to, and as illustrated, Fig. 2 of the accompanying drawings.

ABSTRACT  
CELLULAR NETWORK ACQUISITION  
METHOD AND APPARATUS

5

The present invention provides for a method of network acquisition for a cellular radio communications device arranged for operation in accordance with a plurality of radio technologies and comprising searching to identify a suitable cell on one radio technology, and, subsequent to identifying a suitable cell on the said one radio technology, comprising the steps of also monitoring cells on another of the plurality of radio technologies in order to identify if one of the said monitored cells is more suitable than the cell identified on the said one radio technology, and subsequent to said monitoring, selecting and camping for the first time on the cell identified from all of the radio technologies searched as the most suitable.

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